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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/914,009	08/22/2001	Hidenobu Fukumasa	1275-45	8619	
23117	7590 06/08/2005		EXAMINER		
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR			DEPPE, BETSY LEE		
ARLINGTON		TEOOR	ART UNIT	PAPER NUMBER	
			0.625		

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)			
		09/914,009	FUKUMASA, HIDENOBU			
	Office Action Summary	Examiner	Art Unit			
		Betsy L. Deppe	2637			
Period fo	The MAILING DATE of this communication apport Reply	pears on the cover sheet with	the correspondence address			
THE - Exte after - If the - If NC - Failt Any	ORTENED STATUTORY PERIOD FOR REPL MAILING DATE OF THIS COMMUNICATION. nsions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. e period for reply specified above is less than thirty (30) days, a repl period for reply is specified above, the maximum statutory period are to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply y within the statutory minimum of thirty (3 will apply and will expire SIX (6) MONTH: , cause the application to become ABAN	y be timely filed 30) days will be considered timely. S from the mailing date of this communication, IDONED (35 U.S.C. § 133).			
Status	·					
1)[\]	Responsive to communication(s) filed on 30 M	larch 2005.				
2a)□		action is non-final.				
3)⊠	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposit	ion of Claims					
4)⊠ 5)⊠ 6)□ 7)⊠	Claim(s) 1,2 and 4-24 is/are pending in the ap 4a) Of the above claim(s) is/are withdraw Claim(s) 1,4-9,11,12,14-21,23 and 24 is/are all Claim(s) is/are rejected. Claim(s) 2,10,13 and 22 is/are objected to. Claim(s) are subject to restriction and/or	wn from consideration. lowed.				
Applicat	ion Papers					
9)🖾	The specification is objected to by the Examine	r.				
10)⊠	10) ☐ The drawing(s) filed on 3/30/05; 8/22/01 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.					
	Applicant may not request that any objection to the	= ' '	` '			
11)	Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex		·			
Priority ι	under 35 U.S.C. § 119					
a)l	Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureau	s have been received. s have been received in App rity documents have been re- u (PCT Rule 17.2(a)).	lication No ceived in this National Stage			
* 5	See the attached detailed Office action for a list	of the certified copies not red	ceived.			
Attachmen	t(s)					
1) Notic	e of References Cited (PTO-892)	4) Interview Sum				
	e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08)		fail Date mal Patent Application (PTO-152)			
	r No(s)/Mail Date <u>5/6/02;6/30/04</u> .	6) Other:	Seem Approximation (1 TO-192)			

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DETAILED ACTION

Drawings

- 1. The drawings were received on March 30, 2005. These drawings are accepted.
- 2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
- 3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the receiver in claim 23 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

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number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it is not limited to one paragraph. Correction is required. See MPEP § 608.01(b).

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6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "once every two clock units" (as recited in claim 5, lines 6

and 19; claim 15, line 4; claim 20, line 7) is not described in the detailed description.

Claim Objections

7. The claims are objected to because of the following informalities:

in claim 2, line 7, ", respectively" should be inserted after "sequence" for clarification;

in claims 10, 13, and 22, the Examiner suggests changing lines 2-3 as follows for clarification: " $(1 + (-1)^k j)$ or $(-1 + (-1)^k j)$ wherein (k=0, 1, 2, ..., and j is the imaginary unit."

Appropriate correction is required.

Allowable Subject Matter

- 8. Claims 1-24 are allowable.
- 9. The following is a statement of reasons for the indication of allowable subject matter:

with regard to claims 1, 2, 4, 10-14 and 20-22, prior art of record does not teach or suggests in combination a spread spectrum communication apparatus which uses a

complex number sequence as recited in the last lines of claims 1, 11 and 20 in a complex spreading and/or despreading portion as recited in the respective independent claims;

with regard to claims 5-9 and 15-19, prior art of record does not teach or suggests in combination a spread spectrum communication transmitter comprised of the recited permuting processor; and

with regard to claims 23 and 24, prior art of record does not teach or suggests in combination a spread spectrum communication apparatus comprised of a multiplier and permuting processor as recited in claim 23, lines 4-8.

- 10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Popovic (US Patent No. 6,549,564 B1) teaches multiplying a complex preamble with a complex number sequence. However, the pattern differs from that recited in claims 1, 11 and 20.
- 11. This application is in condition for allowance except for the following formal matters: objections to the drawings, specification and claims.

Prosecution on the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO**MONTHS from the mailing date of this letter.

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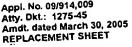
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-3054. The examiner can normally be reached on Monday, Wednesday and Thursday (8:30-4:00).

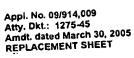
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

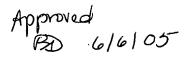
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Betsy L? Deppe
Primary Examiner
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FIG. 3

